Methods of Delivering Knowledge in Architectural Design Project

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In architectural education, design studio is the core subject in design education that acts as the meeting point where all knowledge gained from other independent subjects are applied. In fact, lecturers in design studios represent the main source of learning who deliver their knowledge according to their own set of ideologies, beliefs and experiences. Students are then supposed to form their own sets of ideology and beliefs based on lecturers' experience and knowledge gained from independent subjects. Due to the subjective nature of architectural education, it was found that majority of students are unable to grasp the integration of design (the creativity or artistic part) from non-design courses such as technology, science, and engineering. To overcome this issue, recently, the Architectural Department in the University of Malaya modified and improved the curriculum through integrating a few technical and theoretical subjects into the design studio with the aim to integrate art and science thoroughly in the design projects. Despite the subjects' integrations, the problems of knowledge integration and application remain and seen as worse than before. Accordingly, this paper aims to evaluate the deliverable methods in the design studio and independent subjects through adopting a mix-method by applying a systematic review approach. The results found that most methods in design studio and non-design courses are being applied differently in the form of learning tools, activities and assignments which affect the development of students' knowledge and continuous learning process. The assessment revealed that the methods of design studio aim to develop design solution based on a specific set of ideologies, beliefs, and experiences that consume a considerable time for searching and thinking to assess logic and imagination. While non-design courses, the methods lead directly to solid design solutions which have been observed as a scientific or engineering methods. Therefore, the study established a model to improve the deliverable methods for integrating subjects by stimulating students' interest in developing their design project through two levels: needs, philosophy, and information as the first phase; then explore, engage and develop the design as the second phase. The model of deliverable methods would guide architectural students to develop preliminary design solutions, encourage testing models and obtain preliminary assumptions, refine results by improving students' assumptions, proceed with subsequent design decision making and prepare final design solutions with supportive evidence. At the end, this research contributes to the improvement of UM architectural students' knowledge integration, lecturer's delivery methods and subsequently to the curriculum improvement.

Keywords: architectural education deliverable methods, design studio, integrated subjects, knowledge integration

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